

## CRUSTACEAN SAMPLE LOG

This log is designed to collect biological data on the size and condition of individual lobsters and crabs. These data are used to determine crustacean mortality rates, and to assess the effects of fishing on these rates.

Complete this log on a per haul basis during deployments targeting lobsters and crabs. It should also be completed to sample lobsters and crabs caught on other deployments, as the biological sampling priorities specify, and as time permits. **Only one species may be recorded on a log**, as the information collected for lobsters and crabs differs.

When sampling lobsters, every lobster caught in a haul should be examined, and recorded as one record. If it is not possible to sample every lobster, the observer should attempt to count all of the lobsters caught, and sample as many as possible. When possible, the observer should attempt to sample all of the crabs in the priority order listed in Tables 1a-h. Length Frequency and Age Structure Sampling Priorities in the NEFSC Observer Program Biological Sampling Manual.

If the observer is unable to collect all of the information for every animal sampled, the priority of data collection should be the order (left to right) of the fields listed on the log. All animals sampled must have a CARAPACE LENGTH or CARAPACE WIDTH and CATCH DISPOSITION recorded.

When more than 50 animals are sampled, continue sampling on the back of the log, and number each page accordingly.

### INSTRUCTIONS

For instructions on completing fields **A, B, C, E, Q** and **R**, refer to the Common Haul Log Data section of the NEFSC Observer Program Manual.

**1. NUMBER OF ANIMALS CAUGHT:** Record the total number of animals (of the species being sampled on this log) caught in this haul. This number may differ from the number of animals sampled if a shortage of time, or other circumstances, do not permit sampling every animal.

**2. COUNT - ACTUAL OR ESTIMATED (A/E):** Indicate whether the number recorded in NUMBER OF ANIMALS CAUGHT (#1) is an actual or estimated count by recording the appropriate letter code:

A = Actual

E = Estimated

**3. SHELL DISEASE PERCENTAGE:** Record the percentage of animals, of the species being sampled, caught in the haul that have signs of shell disease. Look for dark necrotic spots on the carapace. A characteristic necrosis forms around the eye sockets, creating "spectacles".

**4. CARAPACE LENGTH/WIDTH:** Record, in whole millimeters, the carapace length (for lobsters; see Figure 1) or width (for crabs; see Figure 2) of the animal being sampled. Use calipers for these measurements. See Appendix P. Vernier Caliper Instructions for further information.

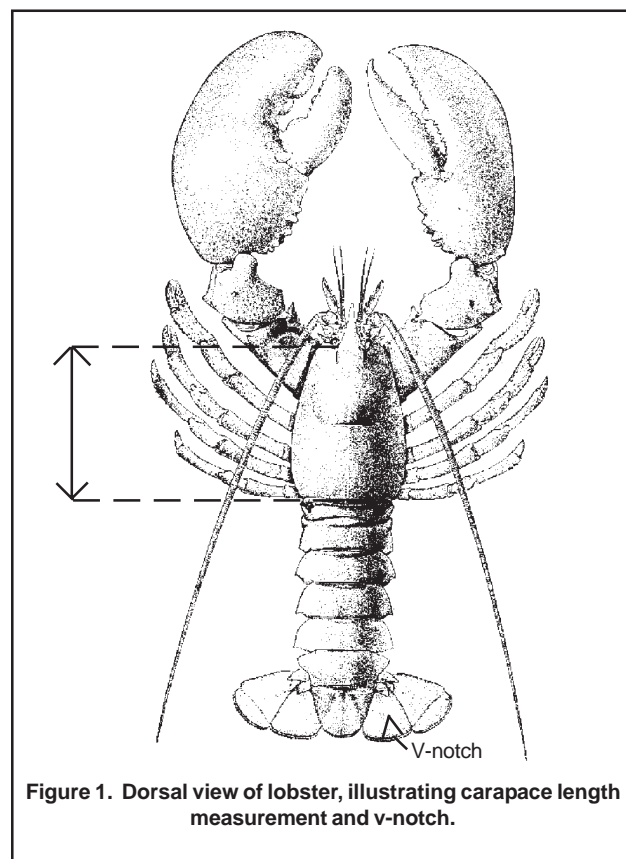
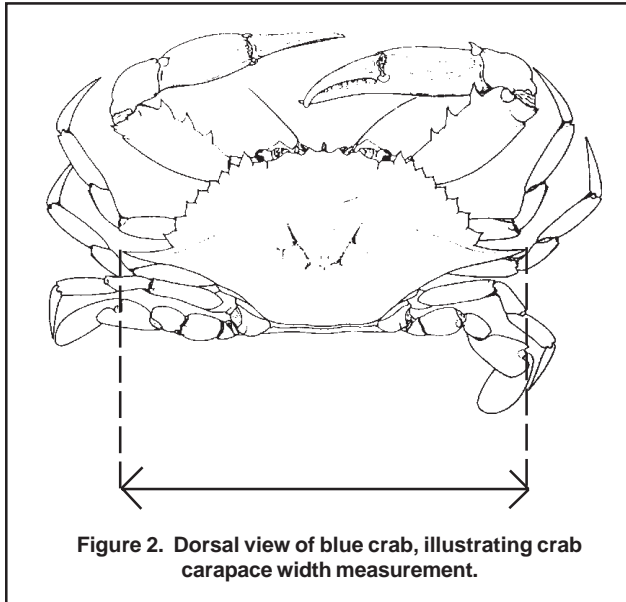


Figure 1. Dorsal view of lobster, illustrating carapace length measurement and v-notch.



**5. CATCH DISPOSITION:** Indicate the disposition of the animal being sampled by recording the appropriate alpha abbreviation:

- K = Kept.
- D = Discarded.

**NOTE:** This disposition must agree with the disposition recorded for this animal on the corresponding Haul Log.

**6. SEX:** Indicate the sex of the animal being sampled by recording the appropriate one digit code. See the Sex Determination section of the NEFSC Observer Program Training Manual for instructions on determining the sex of lobsters and crabs.

- 0 = Unknown.
- 1 = Male.
- 2 = Female.

**7. EGG:** Indicate whether eggs are visible underneath the back part of the abdomen of the animal being sampled by recording the appropriate one digit code:

- 0 = Unknown.
- 1 = No. (**Used for all males.**)
- 2 = Yes.

**NOTE:** Egg color is light green to black (**for lobsters**) or orange to black (**for crabs**).

\*\*\*\*\*For LOBSTERS only\*\*\*\*\*

Leave these fields blank when sampling crabs.

**8. V-NOTCH:** Indicate whether a v-notch exists on the lobster being sampled by recording the appropriate one digit code:

- 0 = Unknown.
- 1 = No.
- 2 = Yes, old. (Uneven edges, possible infected area.)
- 3 = Yes, new. (Clean edges with distinctive V shape.)

**NOTE:** A v-notch is a triangular, 1/8" - 1/4" deep cut in the tail of a lobster. It is usually on the lobster's right-hand side, and may last for 2-3 molts. See Figure 1.

**9. MOLT:** Indicate the condition of the shell of the lobster being sampled by recording the appropriate one digit code:

- 0 = Unknown.
- 1 = Soft. (Barely a shell, very fragile.)
- 2 = Paper. (Crinkles under lateral pressure.)
- 3 = Hard. (Withstands lateral pressure.)
- 4 = Splitter. (Stage just before molt. Shell is hard and split.) - splits down length of carapace.

**10. # OF CLAWS:** Record the number of claws (0, 1, or 2) on the lobster being sampled. To be counted, claws should have a shell, regardless of size or shell condition. Do not count regenerating claws which are small, fleshy appendages with no shell.

## COMMENTS

Record information regarding this sample or your sampling methods (*i.e.* the reason all animals caught were not sampled) below. If more room is needed, use the back of this log, making sure to write "See Back" on the front of the log. Reference each comment with its corresponding field name or animal number.